# PHILIPS

# VCR

VIDEO CASSETTE RECORDER

PHILIPS

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# OPERATING INSTRUCTIONS VR 437

Congratulations! You are now the owner of one of the most sophisticated and simple-to-use video recorders (VCR) on the market.
But please allow me to introduce myself. I am Philip and I should like to help you to get to know your new video recorder.
Naturally, you can't wait to use it, but before you do, it's worthwhile taking the time to read through these operating instructions. They will show you how to make the best use of your equipment.
You can practise using the video recorder without any worries because you cannot damage it no matter which buttons you press.

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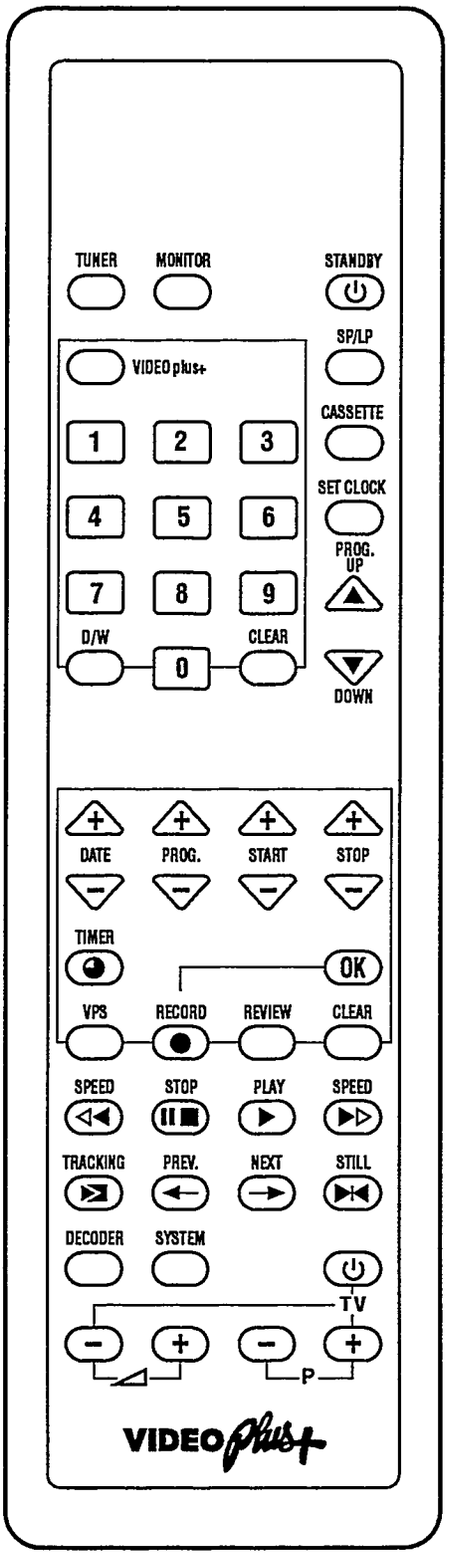
# 1. SUMMARY OF BUTTONS AND CONTROLS

Here is a list of all the buttons, controls and sockets that you will find on the video recorder and the remote control.
You will find detailed descriptions concerning the various functions in the relevant chapters.

## The remote control




TUNER Tuner mode
MONITOR TV monitor function
STANDBY ⏻ Switch off
VIDEO PLUS + 'VIDEO PLUS+' programming
SP/LP Tape speed selection (SP/LP)
0-9 Digit buttons 0-9
CASSETTE Tape length selector
SET CLOCK Set clock on video recorder
UP ▲ Up/Plus, programme number
DOWN ▼ Down/Minus, programme number
CLEAR Reset/clear
D / W Daily/Weekly programming
DATE +/− TIMER Date +/-
PROG. +/− TIMER Programme +/-
START +/− TIMER Start time +/-
STOP +/− TIMER Stop time +/-
TIMER ◕ TIMER programming on the video recorder
OK Confirm button
VPS No function
RECORD ● Record (OK and RECORD ● buttons simultaneously)
REVIEW TIMER Control
◁◀ SPEED Rewind/Reverse scanning
STOP ❚❚ ■ Pause/Stop
PLAY ▶ Playback
SPEED ▶▷ Wind/Forward scanning
TRACKING ▶◪ Tracking/optimum setting
PREV. ← Search function - previous mark
NEXT → Search function - next mark
STILL ▶❙◀ Still picture
DECODER Decoder on/off
SYSTEM No function

**Additional TV functions:** Only functions with televisions with the **same** remote control code.

P Programme number + / -
◿ TV volume + / -
⏻ Switch off TV

## Front of video recorder

AUTOSTORE Store TV channel

PROGRAMME / PRESET Programme 'Preset'

EJECT ▲ Cassette eject

◁◀ SPEED Rewind/Reverse scanning

PLAY ▶ Playback

SPEED ▶▷ Forward wind/Forward scanning

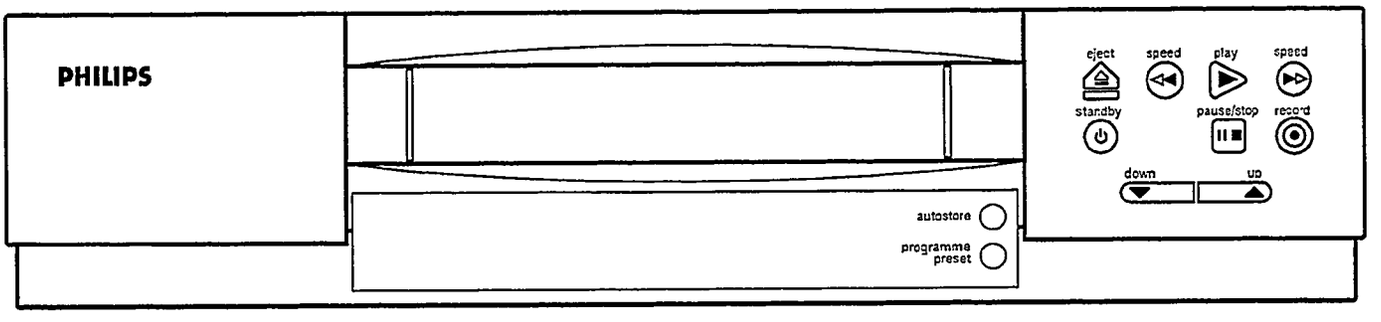
STANDBY ⏻ Switch off

STOP ❚❚ ■ Pause/Stop

RECORD ● Record

DOWN ▼ Down/Minus, programme number

UP ▲ Up/Plus, programme number




## Back of video recorder

Mains socket

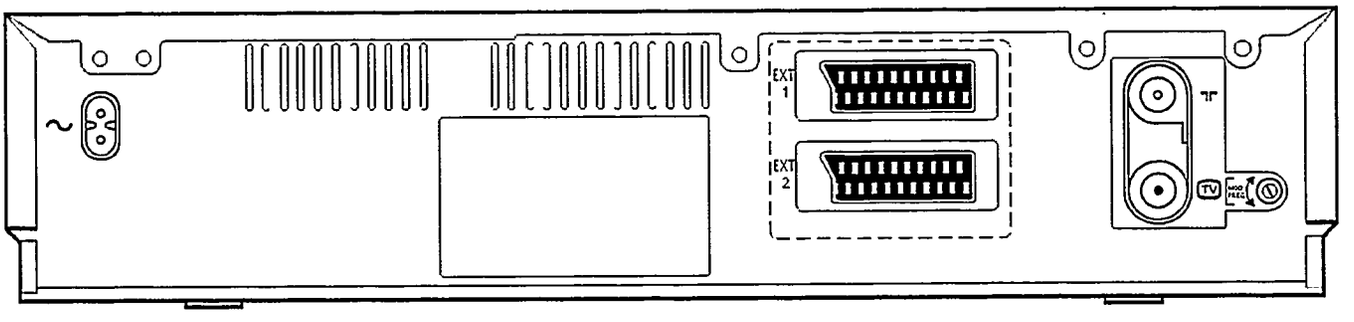
TV Aerial output socket

Aerial input socket

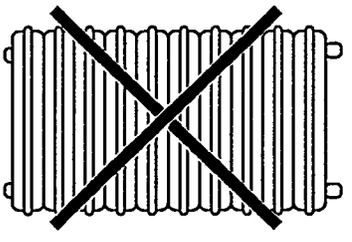
EXT 1 AV-Euro socket (Scart)

EXT 2 AV-Euro socket (Scart)

MOD. FREQ. Channel control



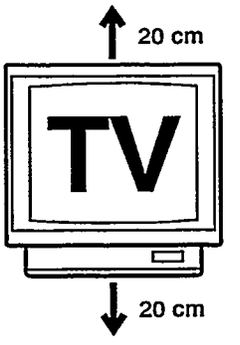
## Safety instructions



- The manufacturer cannot be held responsible for any damage which is incurred by not using the video recorder in compliance with the national guarantee conditions and safety regulations.
- First check that the supply voltage indicated on the back of your video recorder is the same as your local supply voltage.
- Danger - high voltage in this appliance! Do not open! The video recorder does not contain any parts that can be repaired by the user. As long as your video recorder is connected to the mains there are parts of it still in operation. To switch off the video recorder completely you must disconnect it from the mains.
- Ensure that air can circulate freely through the ventilation slots of your video recorder. Do not place your video recorder on soft surfaces.
- Protect your video recorder from rain and damp. Ensure that no objects or liquids enter the equipment. If liquid is spilt into the video recorder, disconnect the video recorder from the mains immediately and call the After-Sales Service for advice.
- Do not place your video recorder close to a source of heat (radiator etc).

## Precautions

- The video recorder should not be used immediately after transportation from a cold to a hot area or vice versa, or in conditions of extreme humidity.
  After unpacking your video recorder, it should be allowed to acclimatize for at least three hours before installation.
- Do not place your video recorder near appliances which generate strong magnetic fields (e.g.: motors, loud speakers or transformers).
- Do not use the video recorder in dusty places or where it may be subject to vibration. We recommend disconnecting the appliance from both the mains and the aerial during heavy thunderstorms.
- Ensure that there is a vertical distance of at least 20 cm (8 ins) between the video recorder and your TV set.
- Do not put your fingers or any other foreign objects into the cassette slot as this could damage the mechanism. Particular care should be taken when children are present.
- If you have to move your video recorder, be sure to remove the video cassette from the cassette slot and avoid sudden or violent jolts.




VIDEOplus+ and PlusCode are trademarks of Gemstar Development Corp.. VIDEOplus+ system is manufactured under licence from Gemstar Development Corporation.

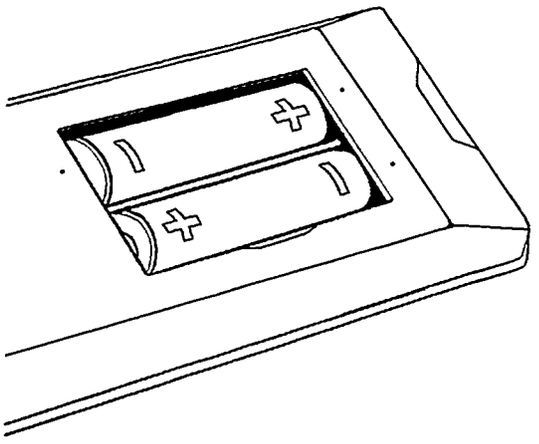
VIDEOPlus+

This video recorder employs the VHS cassette standard.
Only use cassettes of a well-known brand which display the VHS symbol. We recommend that you use PHILIPS VHS video cassettes to ensure the best possible picture quality from your video recorder.

VHS
PAL SECAM

These operating instructions have been printed on chlorine-free paper. This is to help protect our environment.
Used remote control batteries should not be thrown away with ordinary domestic refuse. Deposit old batteries at the relevant collection points.

# 2. INSTALLATION. HOW DO I INSTALL MY VIDEO RECORDER?



## How do I insert the batteries into the remote control?

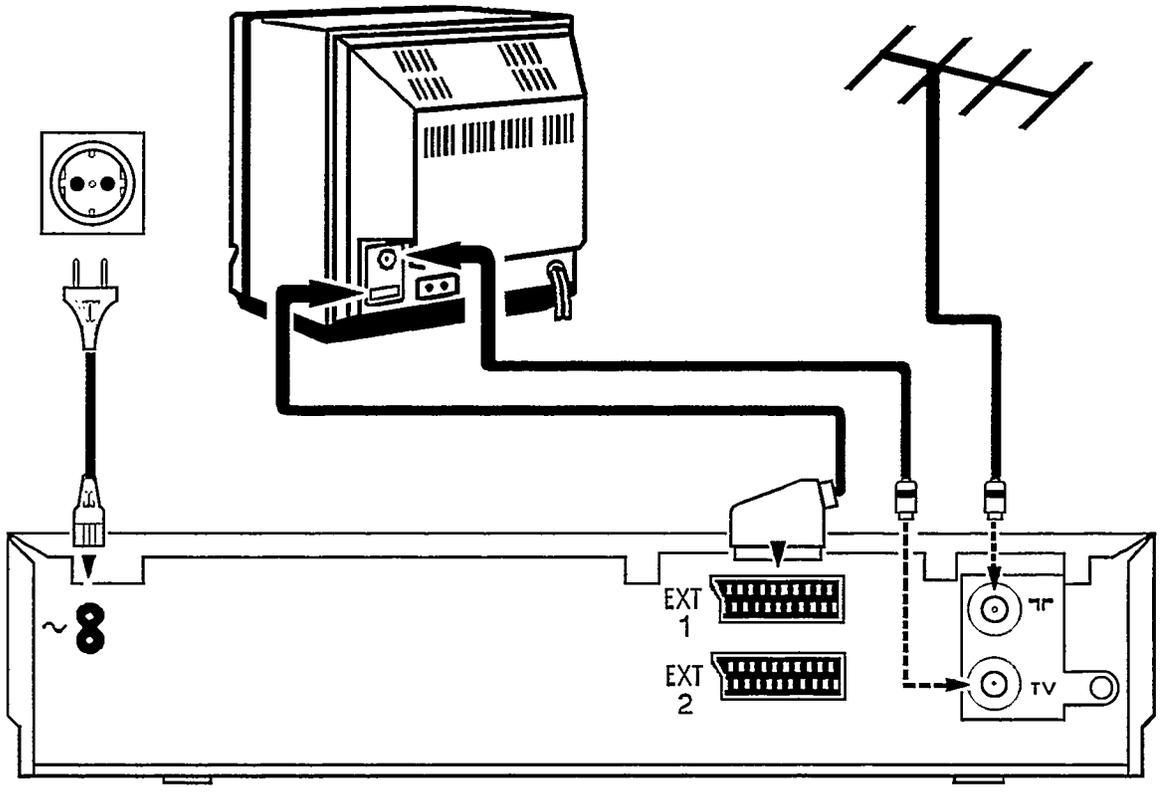
❶ Remove the cover from the back of the remote control.

❷ Insert the batteries as indicated into the battery compartment and close the cover.

Note:
* Do not use rechargeable batteries in this remote control.

## To connect your video recorder

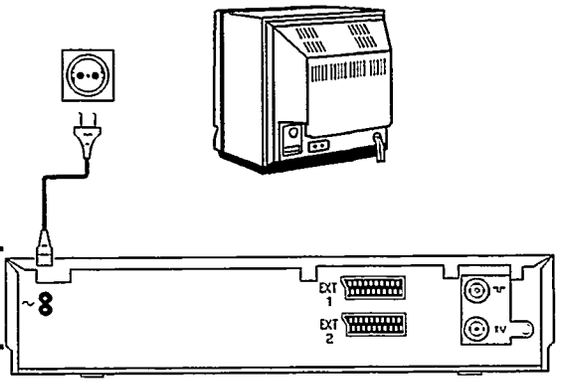
You will find a detailed explanation of this diagram in the following sections.



## Connecting to the mains power supply

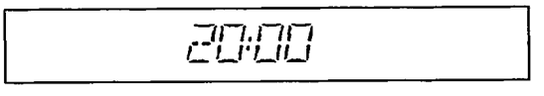
❶ Insert the female plug of the mains cable into the mains socket ⏦ at the back of the video recorder.

❷ Plug the other end of the mains cable into the wall socket.




## Some general notes for subsequent operation

- Keep your video recorder connected to the mains at all times to ensure that programmed recordings can be made and that the television functions. The power consumption required for this is very low.
- The video recorder switches on automatically as soon as you insert a cassette or press the button STOP ❚❚ ■ .
- If you switch your video recorder off using the STANDBY ⏻ button, the current time will appear in the display, e.g.: '20:00'.
  If the clock has not been set, the display will flash.



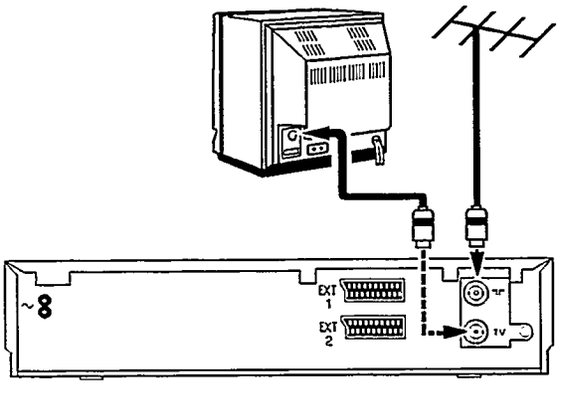

## Connecting to the aerial

Your video recorder is actually a 'TV set without a screen'. Therefore, you must connect it to the aerial as well as to the TV set. Only then can you record TV programmes and play recorded cassettes.

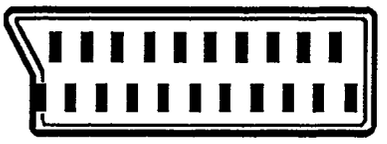
❶ Remove the aerial cable plug from your TV set and insert it into the socket ⊓ at the back of the video recorder.

❷ Plug one end of the aerial cable provided into the TV socket on the video recorder and the other end into the aerial input socket on your TV set.

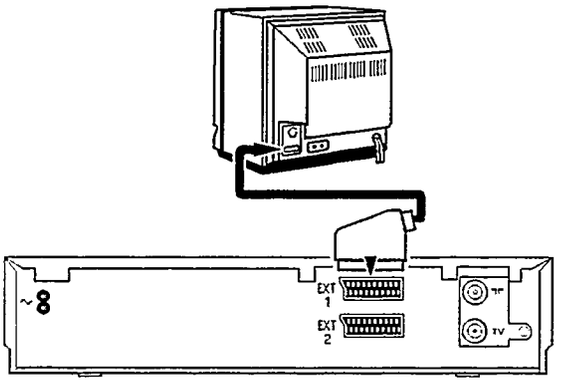
Both the TV set and the video recorder are now connected to the aerial.



## Connecting to the TV set



If your television **does not have an AV-Euro (Scart) socket** please **do not read further here** but turn to Chapter 7, 'Special functions and extras'. In the section 'Playback via the aerial cable' you will find further information.




❶ Plug the orange-marked plug of the AV-Euro cable provided into the orange AV-Euro socket EXT 1 at the back of your video recorder. Connect the other end to the TV set.

❷ This cable connection causes many modern televisions to **automatically** switch to the 'EXT' (**EXT**ernal) or 'AV' (**A**udio/**V**ideo) programme number when playing a video cassette.

On older televisions you will have to select the 'EXT', '0', or 'AV' programme number on the TV set manually to play back from the video recorder.
You will find instructions for this in the operation manual of your TV set.

Your video recorder is now **fully** connected to the TV set.

## Emergency interrupt

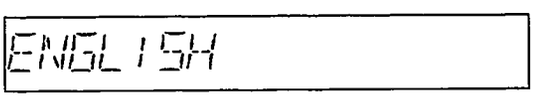
Both the video recorder and the remote control have an 'Emergency interrupt' button. You can use the STANDBY ⏻ button to interrupt any function.
Whenever you have trouble operating the video recorder you can simply interrupt any function and start again.
You can practise operating your video recorder without any worries. No matter which button you press, you won't damage the video recorder.

## Setting the display language

You can choose from ten languages for the display on your video recorder.

❶ Ensure that there is no cassette in the cassette slot. With your video recorder switched off, press the [EJECT ▲] and [PLAY ▶] buttons simultaneously.

❷ Use the [DOWN ▼] or [UP ▲] button to select the required display language, e.g.: 'ENGLISH' .

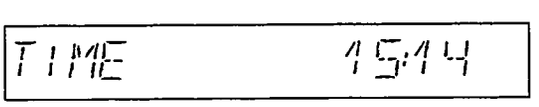



❸ Finally, press the [STANDBY ⏻] button.

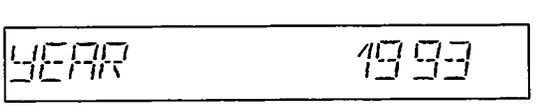
## Setting the clock and date on the video recorder

In order to be able to programme recordings, you must first ensure that the video recorder clock is correctly set. To do this, use the [DOWN ▼] or [UP ▲] buttons on the remote control in all the following steps.

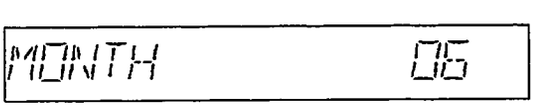
❶ Press the [SET CLOCK] button on the remote control. 'TIME' will appear in the video recorder display. Set the current time.



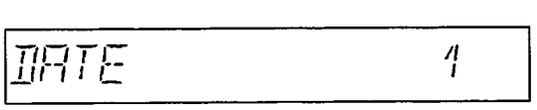

❷ Press the [OK] button. 'YEAR' will appear in the display. Set the current year.



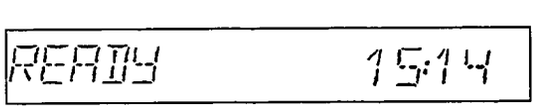

❸ Press the [OK] button again. 'MONTH' will appear in the display. Set the current month.




❹ Press the [OK] button again. 'DATE' will appear in the display. Set today's date.

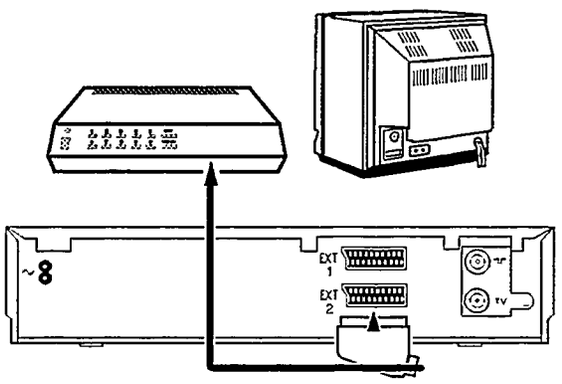



❺ Press the [OK] button again. The time and date have now been set. In confirmation, 'READY' will appear briefly in the display.



## Connecting a decoder

Some TV broadcasters transmit encoded television signals which you can only see with a purchased or rented decoder. You can connect such a decoder (descrambler) to this video recorder.




❶ Connect the decoder to the video recorder with an AV-Euro cable (EXT 2 socket).
You will find a description of how to store TV channels with the decoder in the chapter **'Storing TV channels'**.

❷ Connect the TV set to the EXT 1 socket.

Note:
* You cannot use the decoder with your video recorder and your TV set simultaneously.
* On your video recorder select the programme number that you allocated to the decoder function when storing the channel numbers. The video recorder will then automatically use the decoder.

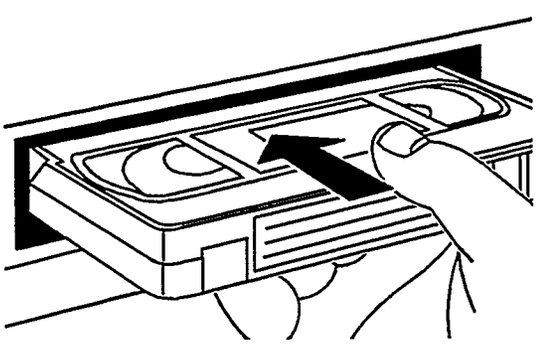
# 3. PLAYING A RECORDED CASSETTE

In Chapter 2 you connected your video recorder to your TV set. Playing a cassette is now very simple.
If you want to record something straight away, first read Chapters 4 and 5.

❶ Switch on your TV set.

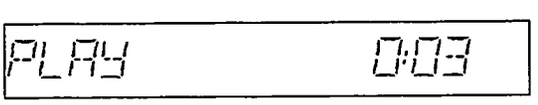
Many modern TV sets **automatically switch over** to the video recorder programme number when a video is played.
However, this only works if your video recorder is connected to your TV set with an AV-Euro-cable.
Otherwise select the programme number on your TV set which you have earmarked for video playback.

❷ Insert the cassette into the cassette slot with the label facing towards you. The window must be facing upwards.

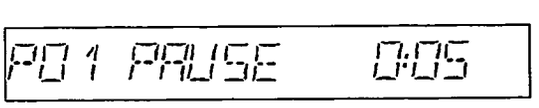


Press against the centre of the cassette until the cassette is automatically pulled inside. When you insert a cassette, the video recorder automatically switches itself on.
Only one side of VHS cassettes can be used for recording or playback.

❸ Press the Play button [PLAY▶].
'PLAY' will appear in the display.



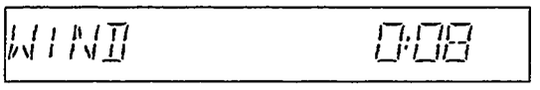

❹ If you wish to interrupt playback, press the [STOP ❚❚■] button.
'PAUSE' will appear in the display.




❺ If you wish to remove the cassette, press the [EJECT ▲] button.

Note:
* Each time a cassette is loaded or removed the video recorder automatically cleans the video heads. In this way the best playback quality is maintained.

## Fast wind and rewind




❶ Press the STOP ❚❚■ button.

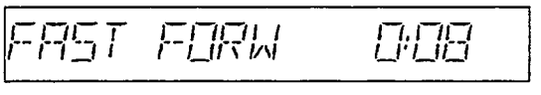
❷ Press the ◁◀ SPEED (Rewind) or SPEED ▶▷ (Wind) button. The tape is wound at high speed.

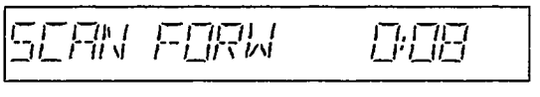
❸ Press the STOP ❚❚■ button as soon as you have reached the required position on the tape.

## Picture scanning

You can choose between various speeds for scanning backwards or forwards.

❶ Press the PLAY▶ button.




❷ Now press the ◁◀ SPEED or SPEED ▶▷ button as often as necessary until you have reached the desired speed.
The display will show: 'SCAN' , 'FAST' , 'REVERSE' or 'PLAY' .

❸ Press the PLAY▶ button once you have found the desired passage.

Note:
* The picture quality is affected during scanning. The sound is turned off. However, this does not mean that there is a fault.

## Still picture/Super-slow motion

❶ Press the PLAY ▶ button on the remote control.

❷ Press the STILL ▶|◀ button. The picture will stand still.
Each time you press STILL ▶|◀ again the picture will move on one step at a time.
Hold down the STILL ▶|◀ button. The picture will be played in super-slow motion.

❸ Press the PLAY ▶ button to continue playing back at the normal speed.

Special note:
* If the still picture vibrates vertically, keep pressing the TRACKING ▶◀ button until the vibration disappears.
If you pass the optimum setting, repeat this step with the TRACKING ▶◀ button.
You only have to find the optimum setting for your TV set once as the video recorder will store it automatically.
Please note, however, that interference may still occur with poor quality hired cassettes.
This is not a fault in your video recorder.

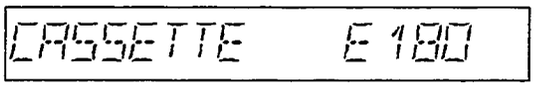
## Slow motion

❶ Press the STILL ▶|◀ button.
The recording is shown as a still picture.

❷ Press the SPEED ▶▷ button several times. You have a choice of three slow motion playback speeds, i.e. 1/7th, 1/10th or 1/14th of normal playback speed.
When you press the ◁◀ SPEED button several times you will return to the still picture.
There is no sound during slow motion playback.

## Tape position.
## How do I know where I am on the tape?

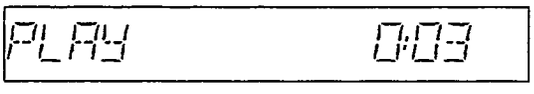
It is handy to know how long a tape has been playing. First enter the length of the loaded cassette. This must be done if the correct playing time is to be indicated. The tape length will be indicated in minutes, e.g.: 'E180' corresponds to 180 minutes of playing time.
You will find the length printed on the left of the narrow front edge. The actual length, however, may be a little longer than indicated.




❶ Press the [CASSETTE] button on the remote control. A tape length will appear in the video recorder display, e.g.: 'CASSETTE E 180' .

❷ Now press the [UP ▲] or [DOWN ▼] button in order to select the right tape length. The alternatives will appear in this order: E30, E60, E90, E105, E120, E150, E180, E195, E200, E210, E240, E260, E300, EC30, EC45, E30 etc.

❸ Point the remote control at the video recorder. Press the [OK] button on the remote control. This confirms the data.




The elapsed playing time can be seen in minutes on the display in the Wind, Rewind, Record, Playback and Pause/Stop modes.

Special Note:
* When you load a cassette, the video recorder has to calculate the playing time. This is why the display will indicate '- : - -' first and will only show the correct playing time after the tape has been running for a few seconds.
* The time display only works accurately with European PAL/SECAM-VHS cassettes. Cassettes made for NTSC-VHS equipment do not show an exact time.

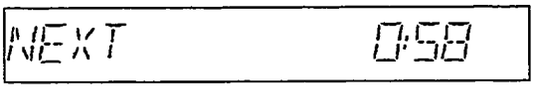
## Searching for a tape position

Sometimes you may have recorded two or more TV programmes on one cassette.
So that you do not have to spend time searching, your video recorder offers you an automatic search facility.

The video recorder marks the tape with code marks every time you start to record. You can search for these code marks on the tape using the PREV.← and NEXT→ buttons on your remote control.

❶ Press the NEXT→ button to select the next code mark or the PREV.← button for the previous code mark.

Either 'NEXT' or 'PREVIOUS' will appear in your video recorder display.




❷ Once the video recorder finds the code mark it will automatically switch to playback.

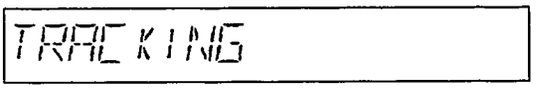
Note:
* When you press any tape transport button (e.g.: the PLAY► or STOP ❚❚■ button) this search function will be stopped.
* You cannot use this function with recordings made on another video recorder that does not have this function.

## How do I eliminate picture interference?

Every time a cassette is loaded the video recorder will **automatically** set the correct tracking position.
For **recordings made on another video recorder** you may be able to improve on the automatic setting as follows:

❶ Press the PLAY► button on your remote control.

❷ Press the TRACKING ▶▶| button on your remote control.




❸ Press the PLAY► button as soon as the playback quality is at its best. This setting will remain until you remove the cassette.

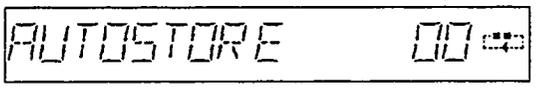
# 4. STORING TV CHANNELS

In order to be able to record TV programmes you must first store all the TV channels (e.g.: 'BBC1') in your video recorder.
You can store up to 42 different TV channels.
Your video recorder has its own receiver. This means that it can be used independently of your TV set.
For the subsequent use of 'Programming with VIDEOplus+' you also have to assign a so-called 'aerial code' to each TV channel (see appended list).

## Automatic channel search

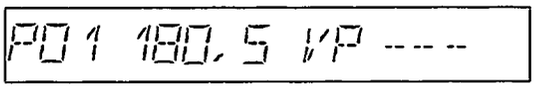
The video recorder will search for all TV channels simultaneously and store them in its memory in the order in which it finds them.

❶ Switch on the TV set.
Many modern TV sets **automatically switch** to the video programme number at step ❷. However, this will only function if your video recorder is connected to the TV set with an AV-Euro cable.
Otherwise, select the video programme number on your TV set.




❷ With the video recorder switched off, press the AUTOSTORE button on your **video recorder**. The automatic channel search function starts.
'AUTOSTORE' will appear in the display.

❸ Wait until the video recorder has found all of the TV channels. This can take several minutes.




❹ Identify the TV channel to which you are tuned and allocate the correct 'aerial code' to it.
For your convenience, with the **first four** programme numbers we have stored the correct 'aerial code' for VIDEOplus+ programming. For other programme numbers use the digit buttons 0-9 to select the correct 'aerial code' (see appended list).
If necessary, clear with button CLEAR. If you do not want, or cannot select certain aerial codes at this time, you can also select them later with the function 'Allocating channel numbers'.

❺ Confirm with button [OK].
Once **all** of the TV channels have been located, 'READY' will appear in the display.

❻ The channel search is now complete and all the TV channels have been stored.

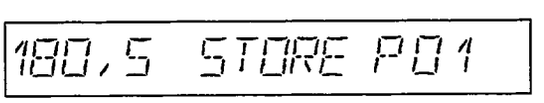
Note:
* After any subsequent activation of the search function, the newly-found TV channels will be added at the end of those previously stored.
* When you activate the 'Automatic Channel Search' function, any TIMER blocks which have been programmed will be cleared. This is not a fault in your video recorder.

## Allocating channel numbers (Programme Preset)

You can allocate any desired programme number to the TV channels stored by the Automatic Channel Search.

❶ Switch on your TV set.
Many modern TV sets **automatically switch** to the video programme number at step ❷. However, this will only function if your video recorder is connected to the TV set with an AV-Euro cable.
Otherwise, select the video programme number on your TV set.

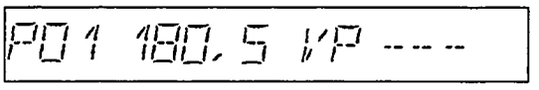
❷ Press the [PROGRAMME PRESET] button on your video recorder. A frequency and 'STORE P 01' will appear in the display (see frequency list at the end of the manual).




❸ Use the [UP ▲] or [DOWN ▼] button on your remote control to select the TV channel to which you wish to allocate programme number 'P 01'. Please store the first four TV channels in the following sequence:
P 1 = BBC 1
P 2 = BBC 2
P 3 = ITV
P 4 = CH 4

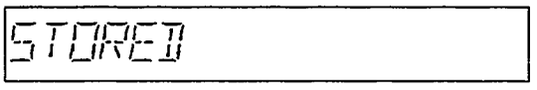
Note:
* Have you used an Euro-AV-cable to connect the video recorder to your TV set and does your TV set respond to the switch-over with the [MONITOR] button on the remote control? If so, you can switch to and fro between TV reception and video recorder reception. This is the easiest way for you to allocate the same TV channels to the same programme numbers on both appliances.

❹ Confirm the allocation by pressing the [OK] button on the remote control.




❺ Identify the TV channel to which you are tuned and allocate the correct 'aerial code' to it.
For your convenience, with the **first four** programme numbers we have stored the correct 'aerial code':
P 1 = BBC 1 = 001
P 2 = BBC 2 = 002
P 3 = ITV = 003
P 4 = CH 4 = 004

For programme numbers **from 5 onwards** : Use the digit buttons [0-9] to select or change the 'aerial code' for VIDEOplus+ (see appended list).
If necessary, clear with button [CLEAR].




❻ Confirm with button [OK].
'STORED' will appear briefly in the display.

❼ The video recorder will now display the next programme number, 'P 02'. Repeat steps ❸ to ❻ until you have numbered all the TV channels.

If you wish to delete a TV channel, for instance, if the picture quality is too poor, press the [CLEAR] button instead of [OK].

❽ When you have finished, press the [PROGRAMME PRESET] button on your video recorder.

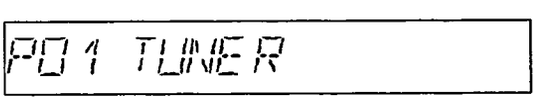
Note:
* Unused (free) programme numbers cannot be selected.
* If a TV station broadcasts encoded programmes and your video recorder is connected to a decoder, press the DECODER button on the remote control at step ❸. 'DECODER' appears in the display. The video recorder will activate the decoder function from now on when you select this TV channel number ( = this programme number). * If you want to fine tune the automatic TV channel setting (step ❸), press the button TRACKING ▶. Now you can use the +/- function to vary from the standard value '0' within a range of +4 to -4.
**Important:** Such fine re-tuning is only necessary and useful in **special cases**, e.g. when there are stripes on the picture in cable-TV systems. However, the picture and sound quality may deteriorate.

## Manual channel search

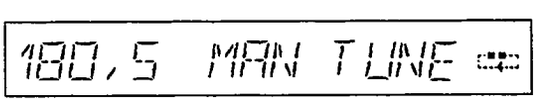
In certain cases the Automatic Channel Search may not be able to find all of the TV channels (e.g. coded TV channels). You can then use this manual method to set the channels.

❶ Switch on the TV set and select the programme number for the video recorder.

❷ Press the TUNER button on the remote control.

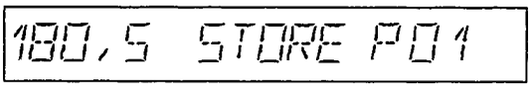



❸ Press the PROGRAMME PRESET button on the video recorder **for more than five seconds.**



❹ Hold down the [DOWN▼] or [UP▲] button until you have found the right TV channel. The display shows the successive frequency numbers.

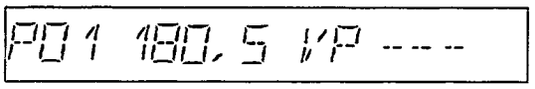
If the TV channel you have found is transmitted encoded and your video recorder is connected to a decoder, press the [DECODER] button on your remote control. 'DECODER' appears in the video recorder display.
The video recorder will activate the decoder function from now on when you select this TV channel number ( = this programme number).




❺ Press the [OK] button on your remote control.

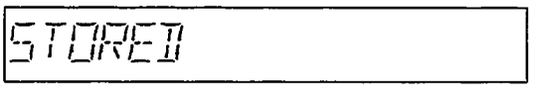
❻ Use the [DOWN▼] or [UP▲] button on your video recorder to select the programme numbers that you wish to allocate to this TV channel. Please store the first four TV channels in the following sequence:
P 1 = BBC 1, P 2 = BBC 2, P 3 = ITV, P 4 = CH 4

❼ Press the [OK] button.




❽ Identify the TV channel to which you are tuned.
For your convenience, with the **first four** programme number we have stored the correct 'aerial code':
P 1 = BBC 1 = 001
P 2 = BBC 2 = 002
P 3 = ITV = 003
P 4 = CH 4 = 004

For programme numbers **from 5 onwards** : Use the digit buttons [0-9] to select or change the 'aerial code' for VIDEOplus+ (see appended list).
If necessary, clear with button [CLEAR].




❾ Press the [PROGRAMME PRESET] button. The TV channel is now stored.

❿ Repeat steps ❸ to ❾ until you have stored all of the TV channels.

⓫ Switch off the video recorder by pressing the [STANDBY ⏻] button.

# 5. HOW DO I RECORD DIRECTLY?

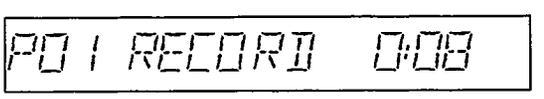
The easiest way to record is to directly record a TV programme that is currently being transmitted.
And this is how to go about it:

❶ Insert a cassette. The video recorder will switch on automatically. You can also switch it on with the [STOP ❚❚■] button.

❷ Use the [UP ▲] or [DOWN ▼] button to select the programme number from which you wish to record, e.g.: 'P 01'.
If you wish to record at a different speed (SP/LP), press the [SP/LP] button on your remote control. 'LP' will appear at the right-hand side of the display.

❸ When you wish to start recording, press the [RECORD ●] button on your video recorder.
If you use the remote control, press the [OK] and [RECORD ●] buttons **simultaneously**. This protects against erroneous recording.

'RECORD' appears in the video recorder display.
The video recorder will record the required TV programme.

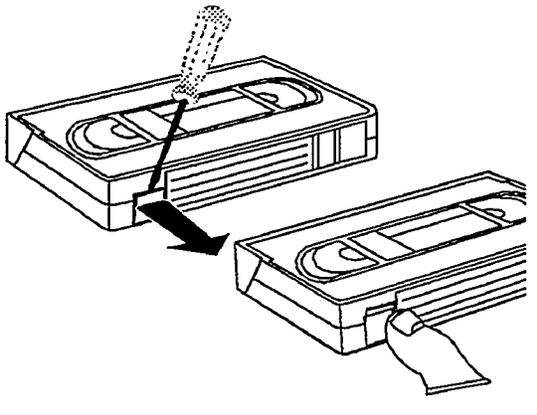



❹ To stop recording, press the [STOP ❚❚■] button.

Can I switch off the TV set during recording?
**Yes!** Your video recorder has its own receiver which enables it to record TV programmes. This means that you can use the TV set independently of the video recorder whilst recording. You can switch it off and on or watch another TV channel without disturbing the recording.

Some general notes:
* Programme numbers 'E 1 ' and 'E 2 ' are provided for recording from external sources (via the 'EXT 1 or 2' AV-Euro socket) e.g. a satellite tuner.
* Have you started to record one TV programme and now want to switch to another TV channel to record a different TV programme? To do this, you have to interrupt the current recording by pressing the [STOP ■] button. Now select the new programme number and start this recording by pressing the [RECORD ●] button.
* If you have forgotten to load a cassette, the warning 'NO CASSETTE' will appear in the display.
* If you accidentally load a cassette with erase protection and try to record on it, the warning 'PROTECTED CASS' will appear in the display. After a few seconds the cassette will be automatically ejected.
* If the end of the cassette is reached during recording, the cassette will be automatically ejected. The video recorder will then switch itself off after a few minutes.
* When you make a new recording on a video cassette, it will automatically record over and delete any recordings already on the cassette.

## Erase protection

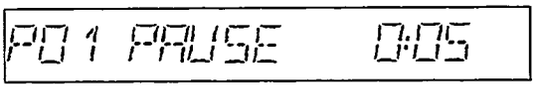


So that you don't accidentally delete an important recording, you can remove the special tab (erase protection) on the narrow side of the cassette with a screwdriver.

Later, if you no longer want the cassette to be erase protected, you can seal the gap again with adhesive tape.

## Auto-assembling

You can use the auto-assembling function to join individual recordings without any annoying flickering between the recordings.




❶ Press the PLAY► button. Search for the correct position on the tape and then stop the playback by pressing the STOP ❚❚■ button. 'PAUSE' will appear in the display.

❷ Now start recording as usual by pressing the RECORD● button.

## Long play function

You can reduce the recording speed by half. This makes it possible to record, for example, 8 hours instead of 4 hours on an 'E240' cassette.

❶ **Before** recording, select the 'LP' (=Long Play) recording speed by pressing the SP/LP button. 'LP' will appear in the display.

❷ During playback the video recorder will automatically select the correct playback speed.

Note:
* You will obtain the best picture quality by recording at the standard speed ('SP').
* During picture scanning, still picture, super slow motion and slow motion the picture is not in colour.

# 6. HOW DO I PROGRAMME A RECORDING?

In this chapter you will learn how to programme your video recorder. It switches itself on automatically, records the TV programme you want and then automatically switches itself off again.

What information does the video recorder need?

You must give the video recorder the following information for every programmed recording you want to make:

* the date on which the recording is to be made
* the programme number for the TV channel
* the start time of the recording
* the stop time of the recording

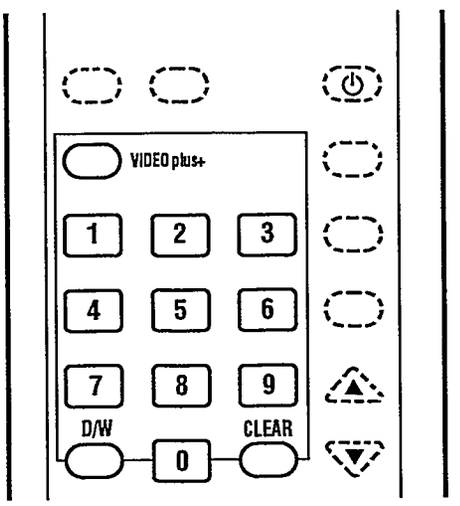
The video recorder stores all the information it needs for recording in what is known as a TIMER block. And you can set this up to one month in advance.

Your video recorder can store up to 6 of these TIMER blocks.
Please note that the timing of the TIMER blocks must not overlap. The video recorder must first finish one TIMER block before starting the next block.

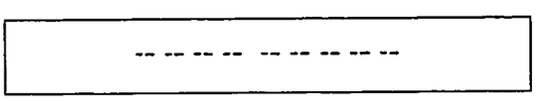
## Programming with VIDEOplus+

With this method the programming will be as easy as dialing a telephone number. You only have to select the 'VIDEOplus+ code' (2 to 9 digits) printed in your TV magazine next to the start time of a TV programme. Make sure beforehand that the internal clock and the aerial codes are set.

❶ Press button [VIDEO PLUS +] on the remote control.

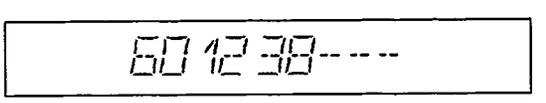



The display of the video recorder shows a number of dashes. To exit from this function press button [CLEAR].



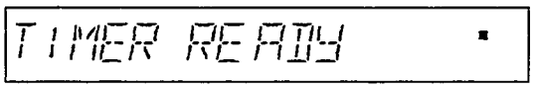

❷ Enter the entire 'VIDEOplus+ code' with the digit buttons [0-9]. This code (2 to 9 digits) is found next to the start time of a TV programme in your TV magazine.
If you entered a wrong code number, clear it with button [CLEAR].

❸ If you want to repeat programming at daily or weekly intervals, press button [D/W] once or twice. The display switches between an additional 'DLY' (=daily) or 'WLY' (=weekly). The daily function can only be used for recordings to be made on Mondays to Fridays inclusive.



❹ Press the button [VIDEO PLUS +]. The programmed code is now decoded by the video recorder. If the video recorder has decoded correctly, the display shows the resultant data. The time is shown in the 24 hour mode.

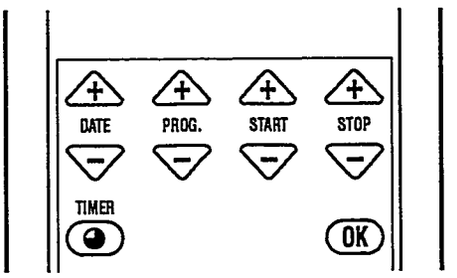
If necessary the data can now be changed with buttons [DATE +/−], [PROG. +/−], [START +/−] and [STOP +/−].




❺ Confirm the correct data with button [VIDEO PLUS +].

Note:
* To identify a TV channel correctly the video recorder needs the correct 'aerial code' for VIDEOplus+. If this is unknown the video recorder display shows 'VP UNKNOWN' and then the programme number 'E 2'.
You then have two possibilities:
1. To interrupt programming. Press button [CLEAR] twice. Then enter, as described in Chapter 4 'Storing TV channels', section 'Allocating channel numbers', the correct aerial code and repeat the programming.
2. To use programme number 'E 2' to record from an external source (e.g. satellite tuner). Confirm the displayed data in step ❹ with button [VIDEO PLUS +].
* If you cannot find, or do not want to use, the aerial code for certain TV channels, then you must use theprogramming method described in the next section.
* If 'CODE ERROR' appears in the display, the code was incorrect or incorrectly entered. Repeat the entry or end with button [STANDBY ⏻].
* If 'SET CLOCK' appears in the display the internal clock is not set. Set the clock.
* Daily programming can only be used for recordings to be made from Mondays to Fridays inclusive.
* Daily/Weekly programming can only be used up to one week in advance.

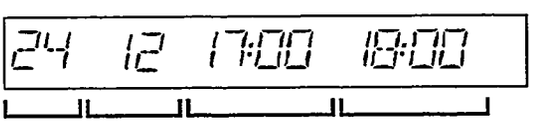
## Programming on the video recorder




You can enter and store data for **six** recordings in your video recorder.

The video recorder display will indicate all data simultaneously. Use the four [+/−] buttons on the remote control to enter the data.
The data will be stored in the next free TIMER block in the video recorder.
Make sure you have not loaded a cassette with erase protection.

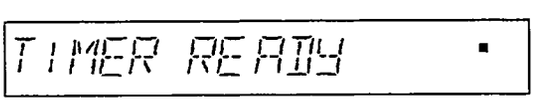
❶ Press the [TIMER ◕] button on the remote control.




A free TIMER block will appear in the video recorder display. You will see the current ( = today!) data for the date, programme number, start time and stop time.
Change the data in **any** sequence you choose:

- Set the date of the recording with the [DATE +/−] button.
- Set the programme number with the [PROG. +/−] button.
- Set the start time with the [START +/−] button.
- Set the stop time with the [STOP +/−] button.

❷ Have you set **all** the data correctly? Now press the [OK] button on the remote control.




As confirmation, 'TIMER READY' appears in the video recorder display.

Programming is now complete.

The data has been stored in a TIMER block.
One of the squares on the right-hand side of the display lights up for each TIMER block that is occupied.

Some **general** programming notes:
* The programmed recording will always be made at the recording speed (SP/LP) that **has already been** selected on the video recorder.
* The TIMER record function will only work when the video recorder is **switched off**. If the video recorder is switched on before a programmed recording is due to take place, the warning 'TIMER RECORD' will light up on the display.
* If the end of the cassette is reached during a programmed recording, the video recorder automatically ejects the cassette.
* If you forget to load a cassette after programming, 'NO CASSETTE' will appear in the video recorder display.
* If you insert a cassette with erase protection for the recording, 'PROTECTED CASS' will appear in the video recorder display for a few seconds. The cassette will then be ejected.
* If you have programmed all TIMER blocks, 'MEMORY FULL' will appear in the video recorder display.

## How do I record from a satellite tuner

You can also programme recordings from an external satellite tuner.

❶ Connect the tuner to the EXT 2 socket. Make sure that the tuner is switched on and that the correct SAT channel has been selected.

❷ Use one of the two available programming methods to programme a TIMER block. Use programme number 'E 2' in the programming procedure for this external recording source.

Note:
* If you use 'VIDEOplus+ programming' for such an 'external' satellite TV programme, the video recorder automatically selects 'E 2'.
The error message 'VP UNKNOWN' can be ignored.

## How do I stop a TIMER recording?

You cannot operate the video recorder manually while a programmed recording is being made.
If you want to stop the programmed recording, press the [STANDBY ⏻] button.

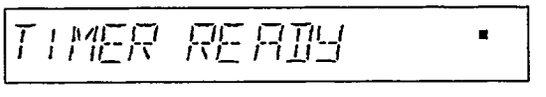
## How do I check or correct a TIMER block?

❶ Press the [REVIEW] button on the remote control.

❷ Now press the [REVIEW] button as often as necessary until the TIMER block you want to check or correct appears in the video recorder display.
The TIMER blocks will appear in chronological order on the display.

❸ Now press the buttons [DATE +/−], [PROG. +/−], [START +/−], [STOP +/−] to change the recording date, programme number, start time or stop time.
You can select between daily/weekly/date programming with button [D/W].

❹ Finally, press the [OK] button. If you have made any changes, the data will now be up to date.
'TIMER READY' will appear in the video recorder display.



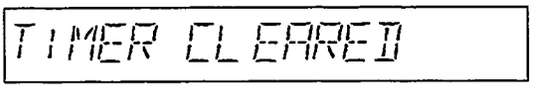

Note:
* Daily programming can only be used for recordings to be made from Mondays to Fridays inclusive.
* Daily/Weekly programming can only be used up to one week in advance.

## How do I clear a TIMER block?

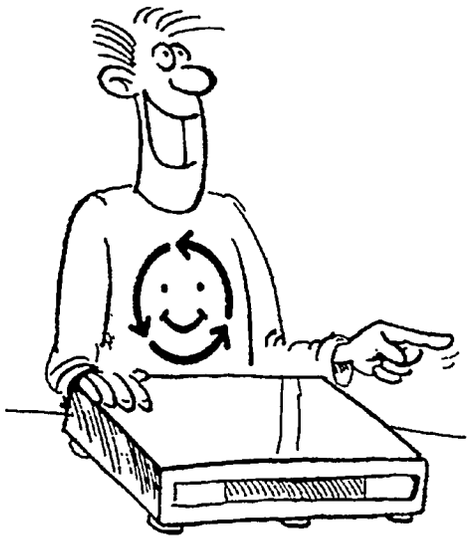
❶ Press the [REVIEW] button on the remote control.

❷ Press the button [REVIEW] as often as necessary until the TIMER block you want to clear appears in the video recorder display.

❸ Press the [CLEAR] button. The TIMER block will be cleared. 'TIMER CLEARED' will appear in the video recorder display.



# 7. SPECIAL FUNCTIONS AND EXTRAS ON YOUR VIDEO RECORDER



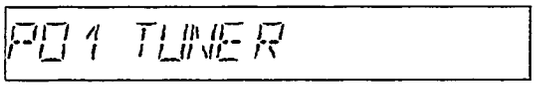
Apart from the functions that have already been described, your video recorder has other special functions and extras designed to make the use of your video recorder as convenient as possible.
In this chapter you will find out more about them.

## Tuner mode. Your video recorder as an extension of your TV set

You can also use your video recorder as a TV receiver (tuner). This is handy if your TV set does not have remote control or if it has fewer storage places for TV channels than the number of TV channels it could actually receive.

This is how you go about it:

❶ Switch on the TV set. Select the programme number you have earmarked for playback on the video recorder.




❷ With the video recorder switched off, press button TUNER on the remote control.
'TUNER' and a programme number will appear in the display.

❸ Choose the required programme number with the UP ▲ or DOWN ▼ button.

❹ Switch the video recorder off by pressing the STANDBY ⏻ button when you no longer want to watch television.

## View Mode

When you connect another appliance to the EXT 2 socket you will be able to use the following additional functions. The appliance can be a second video recorder, a decoder, a satellite receiver or a CD video player.

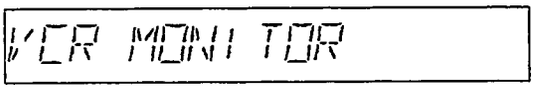
- Thus, if the second appliance transmits a control signal, for example, during playback, the (switched on) video recorder will recognize it and automatically switch to 'View Mode'.
  You can switch View Mode on and off with the MONITOR button.
- Even when the video recorder is switched off, the AV-Euro connection to the second appliance is still operational.

Note:
* If you have selected the programme number 'E 1 ' or 'E 2 ', the video recorder cannot switch over to View Mode. This is also valid for programme numbers for which the decoder function has been activated.
* The function will respond **only** if your TV set also has this switch-over function and you are using an AV-Euro cable to connect your video recorder to the TV set.

## TV monitor function

Switch your TV set to the 'AV' programme number (Audio/Video input) by pressing the MONITOR button. This enables you to see the picture from the video recorder on the TV screen. Your video recorder must be switched on.

'VCR MONITOR' will appear in the display for a few seconds. Press the button again to switch the monitor function off again.




Note:
* The monitor function will respond **only** if your TV set also has this switch-over function and you are using an AV-Euro cable to connect your video recorder to the TV set.
* The monitor button does not respond during playback.

## Automatic switch-off

If the video recorder is not operated for a period of several minutes during one of the following functions, the function will be switched off.
This protects your cassette and prevents unnecessary power consumption.

If the video is:

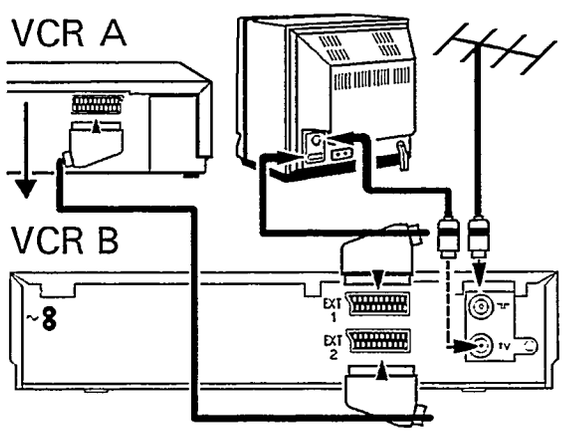
| | |
|---|---|
| in 'STOP' | it switches off |
| in 'NO CASSETTE' | it switches off |
| in 'PAUSE' | it switches to 'STOP' |
| in 'STILL' | it switches to 'PLAY' |
| in, e.g., 'SCAN' | it switches to 'PLAY' |
| in 'SLOW MOTION' | it switches to 'PLAY' |

## Recording from another video recorder

With this video recorder you can make recordings from an external source, such as copying from another video recorder or a camcorder.
To do this you will need an AV-Euro cable (Scart cable).

❶ Connect your video recorder to the appliance from which you want to record, e.g.: another video recorder.

Plug the AV-Euro cable into the AV-Euro socket on each appliance. This is the EXT 2 socket on this video recorder.




Note:
* In the following description, this video recorder will be the one used for recording and will be referred to as VCR B. The other appliance will be used for playback and will be referred to as VCR A.

❷ Insert the recorded cassette into VCR A and a blank cassette into VCR B.

❸ Now select programme number 'E 2 ' on VCR B. This is found near to programme number 'P 01' (P 01 - E 1 - E 2 ). To do this, you use the [UP▲] or [DOWN▼] button.

❹ To start recording, press the recording button [RECORD●] on VCR B and the playback button [PLAY►] on VCR A.

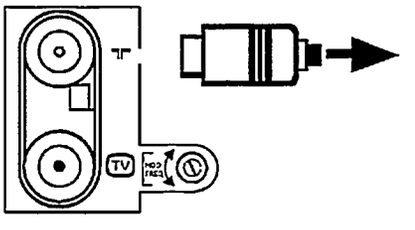
❺ When you want to finish copying, press the stop button [STOP ■] on both video recorders.

## Playback via the aerial cable

If your TV set **does not have** an AV-Euro socket, the **aerial cable which is already connected** will act as the connection between your TV set and the video recorder.

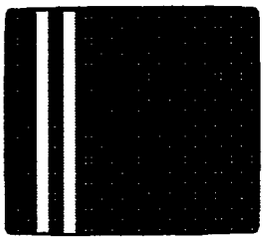
❶ Switch your TV set on and select the programme number that you have earmarked for video playback. (You will find instructions for this in the operating manual for your TV set).

❷ Disconnect the aerial cable from the aerial socket [⊓] of the video recorder so that only the cable connection between the TV set and the video recorder remains.




❸ Make sure the video recorder is switched off and that there is no cassette in the cassette slot. Press the [EJECT ▲] and [PLAY►] buttons simultaneously. The display language you have selected will appear in the display, e.g.: 'ENGLISH' .

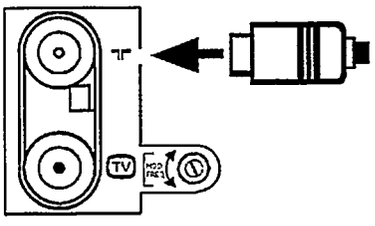
❹ Press the [OK] button. The video recorder will now transmit a test picture which should be received by the TV set. 'TESTPICTURE' will appear in the display.



❺ Tune in the TV set in the UHF wave band until this test picture appears. The video recorder is tuned to UHF channel 36 in our factory.

In order to find out how to tune to the right channel and to store this on your TV set, please consult the operating manual for your TV set.

Note:
* Check the sound and picture quality of reception on your TV set next time you play back from the video recorder. If necessary you can improve the picture, colour and sound by adjusting the channel on your TV set.



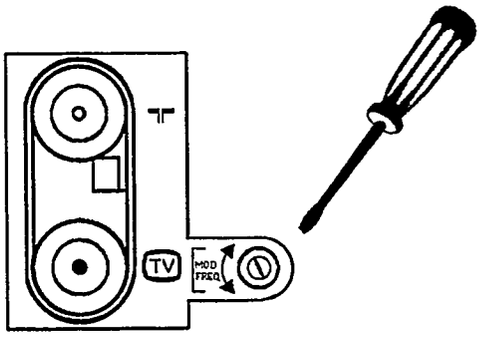

❻ Plug the aerial cable back into the aerial socket ⊓⊓. You have now tuned your TV set to the video recorder.

Information: Your video recorder occupies UHF channel 36. However, this channel might already be occupied by another TV station in your reception area.
In this case you will find that the picture quality on your TV set will be poor when receiving one or more TV channels.

If this happens, follow these steps:

❼ Check that the quality of reception on all the TV channels stored in the TV set remains unchanged.

❽ If the picture quality of one or more TV channels has deteriorated, switch off the video recorder. Check all the TV channels on your TV set once again.




❾ If the picture quality only deteriorates when the video recorder is switched on, adjust the channel control MOD. FREQ. at the back of the video recorder by less than a quarter-turn with a small screwdriver.

❿ Re-tune the TV set to the video recorder (steps ❷ to ❻) until the test picture re-appears.

⓫ Check all the TV channels on your TV set again. Repeat the channel adjustment [MOD. FREQ.] (steps ❾ and ❿) until the picture quality is the same whether the video recorder is on or off.

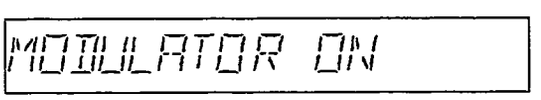
⓬ Switch off the video recorder with the [STANDBY ⏻] button.

Note:
* If you have not yet set the time/date and the display language as described in Chapter 2, 'INSTALLATION', turn to that chapter to do so.

## Switching off the built-in modulator

In the last section we talked about interference that could occur on the television. If you **cannot eliminate** picture or sound interference using the above method you can switch off the built-in modulator.
You can only do this if you have connected the video recorder to the TV set using an AV-Euro cable.

❶ Press the [EJECT ▲] and [STOP ■] buttons on the video recorder simultaneously. The switch's current position will appear in the display as 'MODULATOR ON' .




❷ Press the [EJECT ▲] and [STOP ■] buttons simultaneously again for more than five seconds. This will switch to 'MODULATOR OFF' . Switch the modulator back on in the same way.

# 8. BEFORE YOU CALL AN ENGINEER

| Problem | Possible cause |
|---|---|
| The video recorder does not respond to any button being pressed | * No power supply<br>* Programmed recording is currently being made<br>* Technical disturbance: disconnect from the mains for 30 seconds, then re-connect. If this does not have any effect, you can: 1. Disconnect from mains.<br>2. Re-connect to mains **whilst holding down** the ◁◀ SPEED, SPEED ▶▷ and DOWN ▼ buttons.<br>All data stored will be reset (cleared). |
| Remote control does not work | * Batteries are exhausted<br>* Interference from fluorescent lights or bright sunlight |
| No playback on video recorder | * No recording on the cassette<br>* The VCR programme number on the TV set was incorrectly selected or wrongly set<br>* The connecting cable between the TV set and the video recorder has come loose<br>* Modulator not in the 'ON' position |
| Poor playback from video recorder | * Use TRACKING ▶◀ with hired cassettes<br>* Cassette badly worn or of poor quality<br>* Channel control MOD. FREQ. or TV set not properly adjusted<br>* Video heads dirty. Load - play briefly - remove a cassette several times. This activates the head cleaning function |
| Video recorder will not record | * TV channel not stored or wrongly selected<br>* Cassette with erase protection has been loaded |
| Programmed recording does not work | * Time data wrongly programmed<br>* Time/date not set properly<br>* A cassette with erase protection has been loaded |
| Picture or sound interference on TV reception | * Turn to the Chapter 'Special Functions and Extras' and read the **Note** after step ❻ in the section 'Playback via the aerial cable' as well as the section 'Switching off the modulator'. |

# 9. TECHNICAL DATA, ACCESSORIES

## Technical Data

- Mains voltage 220 to 240 V
- Mains frequency 48 - 52 Hz
- Power consumption typically 15 W (typically 12 W in standby)
- Wind/rewind time typically 95 sec. for E-180
- Ambient temperature during operation +10°C to +35°C
- Relative humidity 20% to 80%
- Dimensions 380 x 338 x 86 mm (incl. feet)
- Weight approx. 4.6 kg
- Position for use max. 15° inclination on all sides
- VHS video resolution ≥ 240 lines
- Audio (SP) 80 Hz - 10 KHz (≤ 8 dB)
- Back-up power supply: TV channel storage - typically 1 year Clock/Timer - typically 7 hours

This video recorder complies with the EC radio interference regulations (82/499/EEC).

## List of accessories

- Aerial cable
- Mains cable
- Operating instructions
- Remote control and batteries
- AV-Euro cable (Scart cable)

In order to facilitate the identification of your video recorder in case of theft, enter the serial number (SER.NR.) in the diagram. The serial number is printed on the type plate fixed at the rear of your video recorder. All enquires can be handled more efficiently if accompanied by the identity card shown. This is provided for your reference and should be kept in a safe place.

| | |
|---|---|
| **TYPE** | **VR 437** |
| **WD xx** | **SER.NR. . . . . .** |

## Table of channel frequencies PAL-B,G:

| channel | wave-band | frequency (Mhz) | channel | wave-band | frequency (Mhz) |
|---|---|---|---|---|---|
| A | VHF I | 45,75 | e60 | UHF | 783,25 |
| e2 | VHF I | 48,25 | e61 | UHF | 791,25 |
| e3 | VHF I | 55,25 | e62 | UHF | 799,25 |
| e4 | VHF I | 62,25 | e63 | UHF | 807,25 |
| e5 | VHF III | 175,25 | e64 | UHF | 815,25 |
| e6 | VHF III | 182,25 | e65 | UHF | 823,25 |
| e7 | VHF III | 189,25 | e66 | UHF | 831,25 |
| e8 | VHF III | 196,25 | e67 | UHF | 839,25 |
| e9 | VHF III | 203,25 | e68 | UHF | 847,25 |
| e10 | VHF III | 210,25 | e69 | UHF | 855,25 |
| e11 | VHF III | 217,25 | - | VHF I | 69,25 |
| e12 | VHF III | 224,25 | - | VHF I | 76,25 |
| - | VHF I | 53,75 | - | VHF I | 83,25 |
| - | VHF I | 62,25 | - | VHF II | 90,25 |
| - | VHF II | 82,25 | - | VHF II | 97,25 |
| - | VHF III | 175,25 | - | VHF II | 104,25 |
| - | VHF III | 183,25 | s1 | VHF I | 105,25 |
| - | VHF III | 192,25 | s2 | VHF III | 112,25 |
| - | VHF III | 201,25 | s3 | VHF III | 119,25 |
| - | VHF III | 210,25 | s4 | VHF III | 126,25 |
| e21 | UHF | 471,25 | s5 | VHF III | 133,25 |
| e22 | UHF | 479,25 | s6 | VHF III | 140,25 |
| e23 | UHF | 487,25 | s7 | VHF III | 147,25 |
| e24 | UHF | 495,25 | s8 | VHF III | 154,25 |
| e25 | UHF | 503,25 | s9 | VHF III | 161,25 |
| e26 | UHF | 511,25 | s10 | VHF III | 168,25 |
| e27 | UHF | 519,25 | s11 | VHF III | 231,25 |
| e28 | UHF | 527,25 | s12 | VHF III | 238,25 |
| e29 | UHF | 535,25 | s13 | VHF III | 245,25 |
| e30 | UHF | 543,25 | s14 | VHF III | 252,25 |
| e31 | UHF | 551,25 | s15 | VHF III | 259,25 |
| e32 | UHF | 559,25 | s16 | VHF III | 266,25 |
| e33 | UHF | 567,25 | s17 | VHF III | 273,25 |
| e34 | UHF | 575,25 | s18 | VHF III | 280,25 |
| e35 | UHF | 583,25 | s19 | VHF III | 287,25 |
| e36 | UHF | 591,25 | s20 | VHF III | 294,25 |
| e37 | UHF | 599,25 | s21 | HYP | 303,25 |
| e38 | UHF | 607,25 | s22 | HYP | 311,25 |
| e39 | UHF | 615,25 | s23 | HYP | 319,25 |
| e40 | UHF | 623,25 | s24 | HYP | 327,25 |
| e41 | UHF | 631,25 | s25 | HYP | 335,25 |
| e42 | UHF | 639,25 | s26 | HYP | 343,25 |
| e43 | UHF | 647,25 | s27 | HYP | 351,25 |
| e44 | UHF | 655,25 | s28 | HYP | 359,25 |
| e45 | UHF | 663,25 | s29 | HYP | 367,25 |
| e46 | UHF | 671,25 | s30 | HYP | 375,25 |
| e47 | UHF | 679,25 | s31 | HYP | 383,25 |
| e48 | UHF | 687,25 | s32 | HYP | 391,25 |
| e49 | UHF | 695,25 | s33 | HYP | 399,25 |
| e50 | UHF | 703,25 | s34 | HYP | 407,25 |
| e51 | UHF | 711,25 | s35 | HYP | 415,25 |
| e52 | UHF | 719,25 | s36 | HYP | 423,25 |
| e53 | UHF | 727,25 | s37 | HYP | 431,25 |
| e54 | UHF | 735,25 | s38 | HYP | 439,25 |
| e55 | UHF | 743,25 | s39 | HYP | 447,25 |
| e56 | UHF | 751,25 | s40 | HYP | 455,25 |
| e57 | UHF | 759,25 | s41 | HYP | 463,25 |
| e58 | UHF | 767,25 | | | |
| e59 | UHF | 775,25 | | | |